

# SEARCH REQUEST FORM

9-23

Requestor's  
Name:

LARA KECLEY

Serial

Number:

8744444

Date:

9-2-97

Phone:

8-0450

Art Unit:

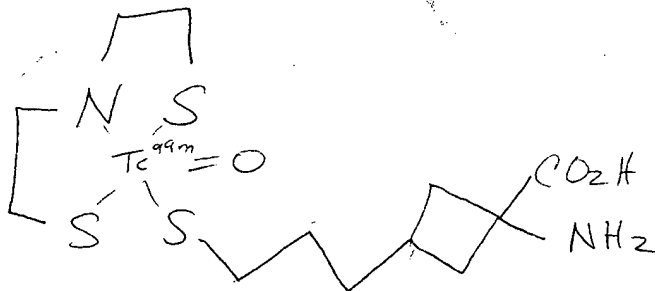
1211

## Search Topic:

Please write a detailed statement of search topic. Describe specifically as possible the subject matter to be searched. Define any terms that may have a special meaning. Give examples or relevant citations, authors, keywords, etc., if known. For sequences, please attach a copy of the sequence. You may include a copy of the broadest and/or most relevant claim(s).

Please search attached claim 1  
wherein a Tc-99m complex is formed.  
(radioactive technetium)

Elected species is:



23

13  
10

## STAFF USE ONLY

Date completed:

9-9-97

Searcher:

KCK

Terminal time:

Elapsed time:

CPU time:

Total time:

Number of Searches:

Number of Databases:

### Search Site

STIC

☒ CM-1

Pre-S

### Type of Search

N.A. Sequence

A.A. Sequence

Structure

Bibliographic

### Vendors

IG

☒ STN

Dialog

APS

Geninfo

SDC

DARC/Questel

Other

47-60

IG 45

STN 6

Dialog 10

APS 26

Geninfo 87

SDC

DARC/Questel

Other

Kelley 08/744,444

=> d his

(FILE 'REGISTRY' ENTERED AT 07:41:57 ON 09 SEP 1997)

DEL HIS Y  
ACT KELLEY/A

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L1 SCR 1921 AND 1991

L2 STR

L3 5 SEA FILE=REGISTRY SSS FUL L2 AND L1

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ACT KELLEY2/A

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L4 STR

L5 SCR 1568 AND 1838 AND 1929

L6 4 SEA FILE=REGISTRY SSS FUL L4 AND L5

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=> fil regf  
'REGF' IS NOT A VALID FILE NAME  
SESSION CONTINUES IN FILE 'REGISTRY'

=> fil reg  
FILE 'REGISTRY' ENTERED AT 08:42:34 ON 09 SEP 1997  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
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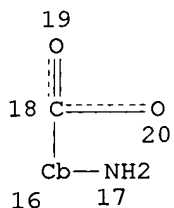
STRUCTURE FILE UPDATES: 09 SEP 97 HIGHEST RN 193672-56-9  
DICTIONARY FILE UPDATES: 09 SEP 97 HIGHEST RN 193672-56-9

TSCA INFORMATION NOW CURRENT THROUGH JUNE 1997

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

=> d que stat l3  
L1 SCR 1921 AND 1991  
L2 STR

*Tc compounds*



NODE ATTRIBUTES:  
CONNECT IS E1 RC AT 20  
DEFAULT MLEVEL IS ATOM  
GGCAT IS MCY SAT AT 16  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE  
L3 5 SEA FILE=REGISTRY SSS FUL L2 AND L1

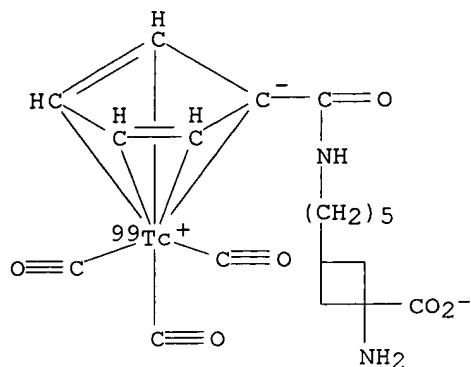
100.0% PROCESSED 567 ITERATIONS 5 ANSWERS  
SEARCH TIME: 00.00.02

=> d ide can l3 1-5

L3 ANSWER 1 OF 5 REGISTRY COPYRIGHT 1997 ACS  
RN 191111-50-9 REGISTRY  
CN Technetate(1-)-99Tc, [(1,2,3,4,5-.eta.)-1-[[[5-(3-amino-3-carboxylatocyclobutyl)pentyl]amino]carbonyl]-2,4-cyclopentadien-1-yl]tricarbonyl-, hydrogen (9CI) (CA INDEX NAME)  
MF C19 H22 N2 O6 Tc . H  
CI CCS  
SR CA

Kelley 08/744,444

LC STN Files: CA, CAPLUS

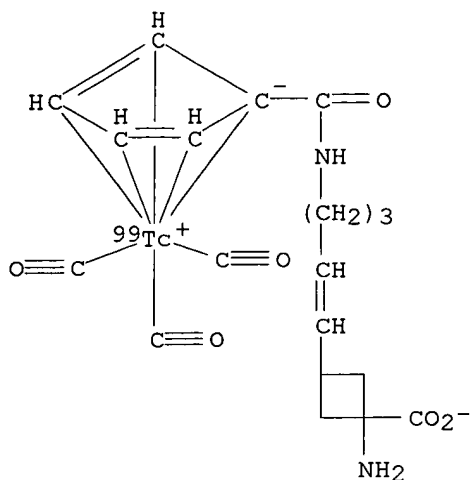


●  $\text{H}^+$

1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 127:51001

L3 ANSWER 2 OF 5 REGISTRY COPYRIGHT 1997 ACS  
RN 191111-48-5 REGISTRY  
CN Technetate(1-)- $^{99}\text{Tc}$ , [(1,2,3,4,5-.eta.)-1-[[[5-(3-amino-3-carboxylatocyclobutyl)-4-pentenyl]amino]carbonyl]-2,4-cyclopentadien-1-yl]tricarboxyl-, hydrogen (9CI) (CA INDEX NAME)  
MF C19 H20 N2 O6 Tc . H  
CI CCS  
SR CA  
LC STN Files: CA, CAPLUS

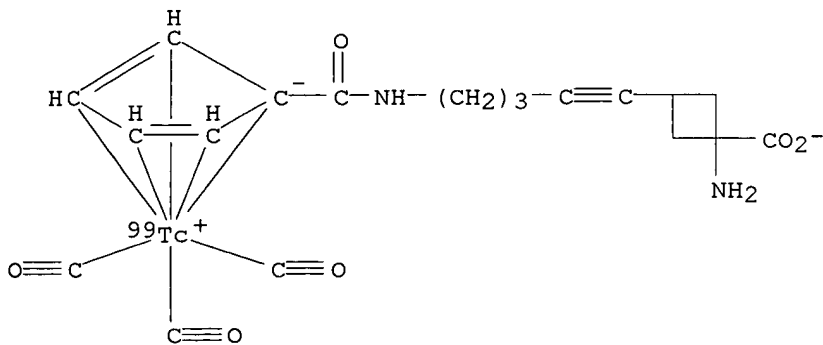


● H<sup>+</sup>

1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 127:51001

L3 ANSWER 3 OF 5 REGISTRY COPYRIGHT 1997 ACS  
RN 191111-45-2 REGISTRY  
CN Technetate(1-)-99Tc, [(1,2,3,4,5-.eta.)-1-[[[5-(3-amino-3-carboxylatocyclobutyl)-4-pentynyl]amino]carbonyl]-2,4-cyclopentadien-1-yl]tricarbonyl-, hydrogen (9CI) (CA INDEX NAME)  
MF C19 H18 N2 O6 Tc . H  
CI CCS  
SR CA  
LC STN Files: CA, CAPLUS



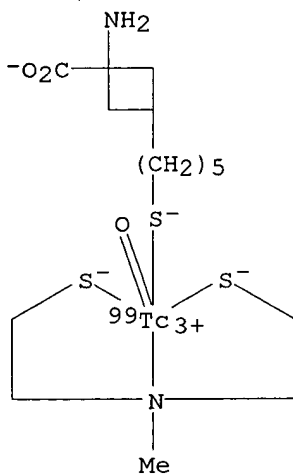
● H<sup>+</sup>

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1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 127:51001

L3 ANSWER 4 OF 5 REGISTRY COPYRIGHT 1997 ACS  
RN 191111-42-9 REGISTRY  
CN Technetate(1-)-99Tc, [1-amino-3-[5-(mercapto-  
.kappa.S)pentyl]cyclobutanecarboxylato(2-)] [[2,2'-(methylimino-  
.kappa.N)bis[ethanethiolato-.kappa.S]](2-)]oxo-, hydrogen (9CI) (CA  
INDEX NAME)  
MF C15 H28 N2 O3 S3 Tc . H  
CI CCS  
SR CA  
LC STN Files: CA, CAPLUS



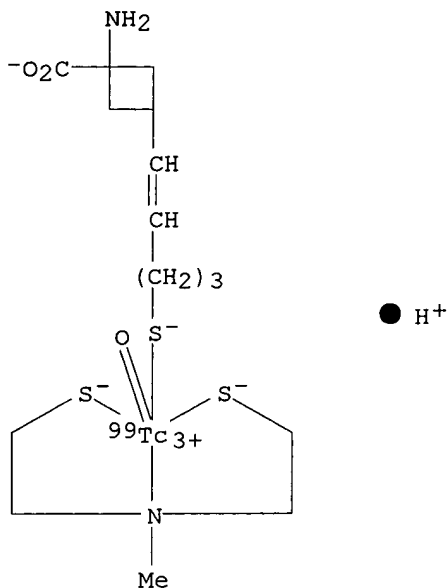
● H<sup>+</sup>

1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 127:51001

L3 ANSWER 5 OF 5 REGISTRY COPYRIGHT 1997 ACS  
RN 191111-39-4 REGISTRY  
CN Technetate(1-)-99Tc, [1-amino-3-[5-(mercapto-.kappa.S)-1-  
pentenyl]cyclobutanecarboxylato(2-)] [[2,2'-(methylimino-  
.kappa.N)bis[ethanethiolato-.kappa.S]](2-)]oxo-, hydrogen (9CI) (CA  
INDEX NAME)  
MF C15 H26 N2 O3 S3 Tc . H  
CI CCS  
SR CA  
LC STN Files: CA, CAPLUS

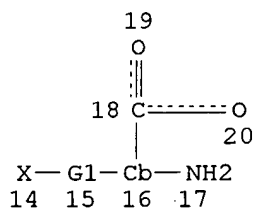
Kelley 08/744,444



1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 127:51001

=> d que stat 16  
L4 STR



REP G1=(1-4) C  
NODE ATTRIBUTES:  
CONNECT IS E1 RC AT 20  
DEFAULT MLEVEL IS ATOM  
GGCAT IS MCY SAT AT 16  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE  
L5 SCR 1568 AND 1838 AND 1929  
L6 4 SEA FILE=REGISTRY SSS FUL L4 AND L5

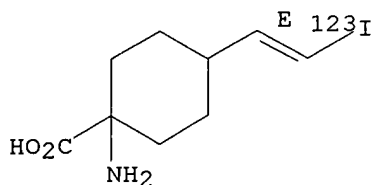
100.0% PROCESSED 54065 ITERATIONS  
SEARCH TIME: 00.00.53

4 ANSWERS

=> d ide can 16 1-4

L6 ANSWER 1 OF 4 REGISTRY COPYRIGHT 1997 ACS  
 RN 191166-85-5 REGISTRY  
 CN Cyclohexanecarboxylic acid, 1-amino-4-[2-(iodo-123I)ethenyl]-, (E)-  
 (9CI) (CA INDEX NAME)  
 FS 3D CONCORD; STEREOSEARCH  
 MF C9 H14 I N O2  
 SR CA  
 LC STN Files: CA, CAPLUS

Double bond geometry as shown.

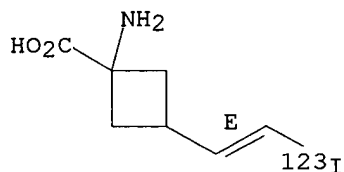


1 REFERENCES IN FILE CA (1967 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 127:51001

L6 ANSWER 2 OF 4 REGISTRY COPYRIGHT 1997 ACS  
 RN 191166-78-6 REGISTRY  
 CN Cyclobutanecarboxylic acid, 1-amino-3-[2-(iodo-123I)ethenyl]-, (E)-  
 (9CI) (CA INDEX NAME)  
 FS 3D CONCORD; STEREOSEARCH  
 MF C7 H10 I N O2  
 SR CA  
 LC STN Files: CA, CAPLUS

Double bond geometry as shown.



1 REFERENCES IN FILE CA (1967 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 127:51001

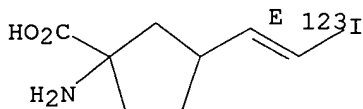
L6 ANSWER 3 OF 4 REGISTRY COPYRIGHT 1997 ACS  
 RN 191111-21-4 REGISTRY  
 CN Cyclopentanecarboxylic acid, 1-amino-3-[2-(iodo-123I)ethenyl]-, (E)-  
 (9CI) (CA INDEX NAME)  
 FS 3D CONCORD; STEREOSEARCH  
 MF C8 H12 I N O2



Kelley 08/744,444

SR CA  
LC STN Files: CA, CAPLUS

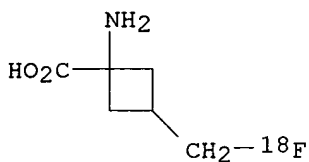
Double bond geometry as shown.



1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 127:51001

L6 ANSWER 4 OF 4 REGISTRY COPYRIGHT 1997 ACS  
RN 191110-95-9 REGISTRY  
CN Cyclobutanecarboxylic acid, 1-amino-3-(fluoro-18F-methyl)- (9CI)  
(CA INDEX NAME)  
FS 3D CONCORD  
MF C6 H10 F N O2  
SR CA  
LC STN Files: CA, CAPLUS



1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 127:51001

=> fil hcapolus  
'HCAPOLUS' IS NOT A VALID FILE NAME  
SESSION CONTINUES IN FILE 'REGISTRY'

=> fil hcaplus  
FILE 'HCAPLUS' ENTERED AT 08:43:05 ON 09 SEP 1997  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
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FILE COVERS 1967 - 9 Sep 1997 VOL 127 ISS 11  
FILE LAST UPDATED: 9 Sep 1997 (970909/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

Improved currency of Japanese patents. See HELP JCURR.

Attention ACS Las Vegas Attendees: Meeting Abstracts for Las Vegas  
ACS National Meeting Now in CAPLUS!

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> s l3

L7 1 L3

=> s l6

L8 1 L6

=> s l7 or l8

L9 1 L7 OR L8

=> d all l9

L9 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 1997 ACS

AN 1997:436060 HCAPLUS

DN 127:51001

TI Amino acid analogs for tumor imaging

IN Goodman, Mark M.; Shoup, Timothy

PA Emory University, USA

SO PCT Int. Appl., 81 pp.

CODEN: PIXXD2

PI WO 9717092 A1 970515

DS W: AU, CA, JP

RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,  
SE

AI WO 96-US18455 961108

PRAI US 95-554906 951109

DT Patent

LA English

IC ICM A61K051-00

ICS C07C061-06; C07C061-08; C07C229-00; C07F005-00

CC 34-2 (Amino Acids, Peptides, and Proteins)

Section cross-reference(s): 8, 29

OS MARPAT 127:51001

AB Amino acid analogs R2CyHzC(CH2R1)C(NH2)CO2H [R1 = X (F, I, Br, or  
their radioisotopes, or At), XCH:CH, haloalkyl, or certain  
99mTc-complex contg. residues; R2 = H, haloalkyl, or certain  
99mTc-complex contg. residues; y = 1, 2; z = 1-4] were prepd. for  
use in tumor imaging by positron emission tomog. An esp. preferred  
amino acid compd. is [18F]-1-amino-3-fluorocyclobutane-1-carboxylic  
acid (FACBC), which was prepd. from benzyl chloride,  
epichlorohydrin, and di-Et malonate. The distribution of  
radioactivity in tumor bearing rats was studied using FACBC.

ST amino acid analog prepn tumor imaging; technetium amino acid prepn  
tumor imaging

IT Tumor imaging

(amino acid analogs for tumor imaging)

IT Amino acids, preparation

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL  
(Biological study); PREP (Preparation); USES (Uses)

(analog; amino acid analogs for tumor imaging)

IT 191110-56-2P

RL: BAC (Biological activity or effector, except adverse); SPN  
(Synthetic preparation); THU (Therapeutic use); BIOL (Biological

*app.*

study); PREP (Preparation); USES (Uses)

(amino acid analogs for tumor imaging)

IT 62-56-6, Thiourea, reactions 100-39-0, Benzyl bromide 105-53-3,  
Diethyl malonate 106-89-8, Epichlorohydrin, reactions 556-52-5,  
Oxiranemethanol 4746-97-8, 1,4-Dioxaspiro[4.5]decan-8-one  
5162-44-7, 4-Bromo-1-butene 14267-92-6, 5-Chloro-1-pentyne  
78461-58-2 191110-82-4

RL: RCT (Reactant)

(amino acid analogs for tumor imaging)

IT 1034-49-7P 2930-05-4P 2987-06-6P 13287-42-8P 13807-91-5P  
21736-07-2P 22428-87-1P, 1,4-Dioxaspiro[4.5]decan-8-ol  
22539-93-1P 54166-15-3P 54307-67-4P 92829-83-9P 191110-48-2P  
191110-49-3P 191110-50-6P 191110-51-7P 191110-52-8P  
191110-53-9P 191110-54-0P 191110-55-1P 191110-57-3P  
191110-58-4P 191110-59-5P 191110-60-8P 191110-61-9P  
191110-62-0P 191110-64-2P 191110-65-3P 191110-66-4P  
191110-67-5P 191110-68-6P 191110-69-7P 191110-70-0P  
191110-71-1P 191110-72-2P 191110-74-4P 191110-75-5P  
191110-76-6P 191110-77-7P 191110-78-8P 191110-79-9P  
191110-80-2P 191110-83-5P 191110-85-7P 191110-87-9P  
191110-89-1P 191110-90-4P 191110-91-5P 191110-92-6P  
191110-93-7P 191110-94-8P 191110-97-1P 191110-98-2P  
191110-99-3P 191111-01-0P 191111-02-1P 191111-03-2P  
191111-04-3P 191111-06-5P 191111-08-7P 191111-09-8P  
191111-10-1P 191111-11-2P 191111-14-5P 191111-15-6P  
191111-16-7P 191111-18-9P 191111-19-0P 191111-20-3P  
191111-22-5P 191111-23-6P 191111-24-7P 191111-27-0P  
191111-28-1P 191111-29-2P 191111-31-6P 191111-32-7P  
191111-33-8P 191111-34-9P 191111-35-0P 191111-37-2P  
191111-38-3P 191111-40-7P 191111-41-8P 191111-43-0P  
191111-49-6P 191111-51-0P 191166-74-2P 191166-80-0P  
191166-87-7P 191166-89-9P 191166-91-3P 191166-93-5P  
191166-94-6P 191166-95-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)

(amino acid analogs for tumor imaging)

IT 191110-63-1P 191110-73-3P 191110-81-3P **191110-95-9P**  
191110-96-0P 191111-00-9P 191111-07-6P 191111-12-3P  
191111-13-4P 191111-17-8P **191111-21-4P** 191111-25-8P  
191111-26-9P 191111-30-5P 191111-36-1P **191166-78-6P**  
**191166-85-5P**

RL: SPN (Synthetic preparation); PREP (Preparation)

(amino acid analogs for tumor imaging)

IT 14133-76-7DP, Technetium-99, complexes with  
aminocyclobutanecarboxylic acid derivs., preparation  
**191111-39-4P 191111-42-9P 191111-45-2P**  
**191111-48-5P 191111-50-9P** 191111-51-0DP,  
complexes with technetium-99 191111-52-1DP, complexes with  
technetium-99 191166-96-8DP, complexes with technetium-99  
191166-97-9DP, complexes with technetium-99

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL  
(Biological study); PREP (Preparation); USES (Uses)

(amino acid analogs for tumor imaging)